Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 6I – Triple Stoichiometry Conversions with Volume (*Part 3*) 20 Points

For the following chemical reactions, complete the chart and perform the following conversions

Chemical Equation	$2H_3PO_4 + 3Cl_2 \rightarrow 6HCl + 2PO_4$			
Molar Ratio	mol H_3PO_4 =	mol Cl_2 =	mol HCl =	mol PO_4

MM H_3PO_4	98.00g/mol
MM Cl_2	70.90g/mol

MM HCl	36.46g/mol
MM PO_4	94.97g/mol

Convert 48.38L Cl_2 to mol Cl_2	
mol Cl_2 =	

Convert mol Cl_2 to mol PO_4	
mol PO_4 =	

Convert mol PO_4 to volume PO_4	
volume PO_4 =	

Convert 274.29g H_3PO_4 to mol H_3PO_4	
mol H_3PO_4 =	

Convert mol H_3PO_4 to mol Cl_2	
mol Cl_2 =	

Convert mol Cl_2 to volume Cl_2	
volume Cl_2 =	

Chemical Equation	$2Al_2O_3 \rightarrow 4Al + 3O_2$
Molar Ratio	mol Al_2O_3 = mol Al = mol O_2 =

MM Al_2O_3	128.94g/mol

MM O_2	32.00g/mol

Convert 32.84L O_2 to mol O_2	
mol O_2 =	

Convert mol O_2 to mol Al_2O_3	
mol Al_2O_3 =	

Convert mol Al_2O_3 to mass Al_2O_3	
mass Al_2O_3 =	

Convert 84.39g Al to mol Al	
mol Al =	

Convert mol Al to mol Al_2O_3	
mol Al_2O_3 =	

Convert mol Al_2O_3 to mass Al_2O_3	
mass Al_2O_3 =	